

Summary of ATF operations for the week of April 1-5

reported at ATF Friday Meeting, April 5 2013

- First attempt for initiating Experiment AE50 - [Plasma Wakefields in the Quasi-Nonlinear Regime](#) ended this week with demonstration of sharp e-beam focusing by mini-quad triplet. The beam observed on a phosphor BPM is below the resolution. However, attempts to observe OTR with a microscope were not successful. A team will be back in June to continue with trouble-shooting the optical setup.
- Marc worked with Optronix reps on correcting problems with both Ti-Sapph systems serving CO2 seed and UV for photocathode. The photocathode system is recovered to the specified power and beam quality. CO2 seed still needs improvements. A new parametric crystal for 10 um does not work to expectations as it requires a special phase delay plate. Marcus shall find out about availability and delivery. Meantime, the OPA output could be used for initial tests of CO2 seeding.
- Next week, Plasma Holography experiment starts that utilizes a Ti-Sapph beam delivered from CO2 room by a fiber. Marcus will explore the possibility to divert a small portion of the laser power for this experiment while continuing operating OPA.
- Ion acceleration experiment with a dual CO2 pulse continues with searching for right laser and plasma parameters. Researchers shall find correlation between the plasma dynamics and laser beam parameters. Additional beam diagnostics will be introduced for the next week run.
- Bob is working with a company on resolving communication problems with CAEN power supplies which are considered for replacement of old magnet power supplies as well as candidates for ATF II.
- Marc is completing preparations for x-band klystron tests. A chiller needed for this test is on the way to BNL. When the test proves successful, ATF will initiate procurement and installation of all the components needed for a deflecting cavity – an important ATF upgrade.
- We had a meeting on the ATF proposal preparation. The tasks for the next week include: writing detailed plan for the proposal sections and elaborating the WBS form to 5th and higher levels, all according to the individual assignments. The initial WBS form shall be obtained from John.